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ABSTRACT

A study investigated the effectiveness of subliminal techniques (such as tape recorded programs) for improving public speaking ability. It was hypothesized that students who used subliminal tapes to improve public speaking ability would perform no differently from classmates who listened to identical-sounding placebo tape programs containing no subliminal messages. Subjects, 26 students at a midwestern university, were divided into subliminal tape and placebo tape groups. Comparison of pretest and posttest surveys did not support the hypothesis. Although placebo group members evaluated their own confidence, improvement, and enjoyment higher than the subliminal group, the average final course grade of the experimental (subliminal) group was higher than that of the control (placebo) group. (Tables of data are included, notes and sample pretests and posttests are appended.) (NKA)

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A COMPARATIVE STUDY OF THE EFFECT OF SUBLIMINAL MESSAGES ON PUBLIC SPEAKING ABILITY

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A COMPARATIVE STUDY OF THE EFFECT OF SUBLIMINAL MESSAGES ON PUBLIC SPEAKING ABILITY

This report will describe a study which examines the effect of subliminal messages on public speaking ability. Speculation on the effect of subliminal messages is common in the popular literature[1] but little has been done to evidence such speculation in grounded terms. Advertisements claim subliminal messages can be used to improve our lives in many ways. The purpose of this study is to examine such a claim in a concrete manner which provides more substantiation than mere speculation.

Midwest Research, under the trademark of Subconscious to Conscious Without Limitation (SCWL), produces 71 audio cassette programs which claim to help the user improve his/her life by helping him/her lose weight, stop smoking, control stress, improve sexual satisfaction, overcome fears, control drinking, improve study habits, improve in golf, and improve in many other areas. Program #57, Effective Speaking, claims to help the user gain poise and confidence in public speaking.[2]

The purpose of this study is to investigate the effectiveness of subliminal techniques for improving public speaking ability. The operational hypothesis of this investigation states: Students who use subliminal tape programs designed to improve public speaking ability will perform no differently than classmates who listen to identical sounding placebo tape programs containing no subliminal messages.

As a professor of public speaking, I have seen references to

subliminal programs which make claims of user improvement in public speaking and have viewed such claims with skepticism. I have felt advertisements in the popular media which make these claims are nothing more than unethical approaches to swindling people out of their money. I do not understand how listening to a tape, which does not have a conscious message, can improve public speaking ability.

However, I am also aware a large segment of the American culture has been exposed to such claims through magazines, newspapers, and television. While I have discounted such claims to be false I cannot assume others will as well. Judging by the continued growth of such subliminal programming, it is obvious many people believe these programs work. Thus, as a social scientist and a professor of public speaking, I have been moved to study the effect of subliminal messages on public speaking ability.

If the academic community can disprove the claimed effects of these types of subliminal programs then we will do the public a service by sharing our research. If our research substantiates such claims are legitimate, or partially legitimate, then we can also share our findings. If the latter is true, perhaps we can further investigate how such subliminal programming works and use it to benefit our teaching. Although I am skeptical, I do not believe it is fair to dismiss claims of subliminal success simply because it is a new and unsubstantiated approach. Otherwise, the world might still be flat.

Review of literature dealing with the success of subliminal messages in modifying behavior indicates a lack of substantiated research in this area. There are a variety of works which speculate

on the effects of subliminal messages[3] but few of these can substantiate their claims. The following review provides a description of some of the more groundbreaking works.

Laboratory research established that humans can perceive auditory, visual, and olfactory stimuli which are below the level of conscious awareness.[4] Further research indicates messages flashed on a movie screen every five seconds for about 1/1000 of a second, during a film, have proven to affect audience behavior.[5] It is important to acknowledge that this technique will not influence anyone who is not already predisposed to the specific suggestion given.[6] Thus, an individual could not be influenced to ax murder a random victim unless he/she was already predisposed to such an idea.

George Smith, author of Motivation Research in Advertising and Marketing, affirms "There is evidence that people can be affected by subthreshold stimulation; for example, a person can be conditioned to odors and sounds that are just outside the range of conscious awareness".[7] Corrigan and Becker found information can be subliminally communicated to the unconscious and then used later by the recipient at the conscious level.[8]

Silverman describes an experimental design using symbiotic fantacies for alleviating anxiety. His procedure involved the use of a tachistoscope, a projector which quickly flashes visual stimuli, to subliminally project words such as "Mommy and I are One".[9] In 1986, the U.S. federal government included the same technique in a stress management seminar for federal executives. The subliminal messages included "I am calm", "I deserve to feel safe", and "Mommy and I are one". The last message, according to the seminar psychologist "gives

people a feeling of safety and security".[10]

Silverman has overseen roughly 50 studies which demonstrate subliminal presentation of emotionally charged messages can initiate unconscious thoughts and feelings and eventually alter behavior.[11] Furthermore, he has derived that wish related subliminal stimuli and the power to activate psychodynamic processes can affect overt behavior.[12]

The effective use of audio subliminal messages has been claimed in a variety of areas. Borgeat, Chabot, and Chaloult report positive results in their study of smokers, alcoholics and obese patients who were subliminally influenced to reduce cigarette, alcohol, and food intake.[13] Hollingworth describes two studies which utilized subliminal messages to reduce theft. The studies highlight the significant reduction of shrinkage in an Australian supermarket and stores in the U.S.[14] Similar, but even more effective, results were evidenced in an investigation involving New Orleans area supermarkets.[15]

Parker showed that subliminal messages were effective in improving academic performance. Sixty law students were divided into three groups of 20. The results indicated that the two experimental groups (using the subliminal tapes) earned significantly higher grades than the control group (using placebo tapes).[16] Similarly, the focus of this study is concerned with the practical application of subliminal communication for improving academic performance, specifically in the public speaking course.

SCWL (Subconscious to Conscious Without Limitation) Program #57, Effective Speaking, was chosen for study after I read about the tape in several editions of the Chronicle of Higher Education.[17] I contacted

the parent organization (Midwest Research) and they consented to my request to test the program. They informed me their subliminal scripts dealt with self image, attitude, and confidence in addition to the topic of the particular program.

Midwest Research supplied me with 40 tapes of program #57 free of charge. Half of the tapes contained the subliminal program and the other half were placebo tapes (with no subliminal messages). The tapes were numbered but I was not informed which tapes were subliminal or placebo until the data collection was finished.

The study was carried out during the winter quarter of 1987 at the University of Cincinnati. Two sections of the public speaking course, which I taught, were offered the opportunity to participate in the study. A total of 26 students successfully participated in the study. A number of other students were given tapes after the study began, the experiment began the first day of class and some students were absent, but these students are not included in the final analysis since they did not participate in the full course of the outlined investigation.

Thirteen students (the experimental group) received subliminal tapes and 13 students (the control group) received placebo tapes. All the tapes, to the conscious ear, were sounds of ocean waves, seagulls, and crickets. Instructions to participants included the following:

1. Participation is not required. You will not be penalized for non-participation or rewarded for participation.
2. A company which produces self improvement tapes has provided me with these tapes for study free of charge. The company claims some of these tapes can improve your public speaking ability. I am interested in testing their claim.

3. You will receive a tape if you choose to participate. Play it as often as you like (preferably 3-7 times a week). Mark the cassette case each time you listen to it so I will know how many times you played it during the term. I will collect the tapes at the end of the term.
4. Do not listen to the tape while driving or working with machinery. You can play the tape while working around house, cooking, cleaning, studying, watching television, eating or similar activities.

Each student signed a Research Enrollment Acknowledgement which further described my intentions with the information to be learned. A pre-test survey was conducted the day I passed out the tapes. A post-test written survey was conducted the day I collected the tapes. The surveys are included in the appendix of this paper. The test covered a ten week period (January 5, 1987 - March 12, 1987).

Tapes were passed out randomly to students. Each tape had a code number on it. Students indicated their code number on their pre-test survey. Midwest Research sent me a list, at the end of the study, revealing which tape code numbers noted subliminal tapes and which noted placebo tapes.

Experimental Design

	Pre-test	Treatment	Post-test
Experimental group	survey	Home use of subliminal program for 10 weeks	Survey & final course grade
Control group	survey	Home use of placebo program for 10 weeks	Survey & final course grade

As stated in the experimental design, student ability was

evaluated by both the student and the instructor. This approach was helpful to gauge possible effects of the self-fulfilling prophecy.

The analysis of findings is based on the data accepted as evidence. Data accepted as evidence consists of the pre-test survey, post-test survey, and the final grade in the course. This information is summarized in the six tables which follow.

Table #1
AGE, CLASS, AND SEX

	18-28	29-38	39-48	49-58	59+
Subliminal	10	2	1	0	0
Placebo	12	1	0	0	0

Table # 2
GROUP AVERAGES BASED ON CREDIT HOURS ATTEMPTED AND CURRENT GRADE POINT AVERAGE (ON A 4.0 G.P.A. SCALE)

Credit Hours Attempted During Quarter

Subliminal	15.45
Placebo	15.15

Current Grade Point Average

Subliminal	2.8
Placebo	2.73

Table #3
EXPECTED GRADE IN COURSE (PRE-TEST AND POST-TEST)

		A	B	C	D	F
Subliminal	Pre-test	1	12	0	0	0
	Post-test	2	9	2	0	0
Placebo	Pre-test	4	8	1	0	0
	Post-test	0	12	1	0	0

Table #4
SELF PERCEPTIONS OF PUBLIC SPEAKING ABILITIES (PRE-TEST AND POST-TEST)

SA - strongly agree
A - agree
N - neutral
D - disagree
SD - strongly disagree

I am comfortable speaking to a group of people.

Subliminal	SA	A	N	D	SD
Pre-test	0	3	4	5	1
Post-test	3	6	4	0	0
Placebo					
Pre-test	1	1	6	5	0
Post-test	3	6	4	0	0

I am easily understood when I speak to a group of people.

Subliminal	SA	A	N	D	SD
Pre-test	0	4	4	5	0
Post-test	1	8	3	1	0
Placebo					
Pre-test	0	6	5	2	0
Post-test	2	7	4	0	0

I am confident speaking in front of a group of people.

Subliminal	SA	A	N	D	SD
Pre-test	1	2	5	4	1
Post-test	2	5	6	0	0
Placebo					
Pre-test	0	3	3	6	1
Post-test	3	4	5	1	0

I am an effective public speaker.

Subliminal	SA	A	N	D	SD
Pre-test	0	1	7	4	1
Post-test	0	4	8	1	0
Placebo					
Pre-test	0	2	7	4	0
Post-test	2	7	4	0	0

(continued)

I am a better public speaker than most of my friends.

Subliminal	SA	A	N	D	SD
Pre-test	0	3	4	5	1
Post-test	0	4	7	2	0
Placebo					
Pre-test	0	2	5	6	0
Post-test	4	4	5	0	0

I think I will enjoy/I enjoyed my experiences in my public speaking class.

Subliminal	SA	A	N	D	SD
Pre-test	3	8	2	0	0
Post-test	4	7	2	0	0
Placebo					
Pre-test	3	8	2	0	0
Post-test	8	4	1	0	0

Table # 5
GROUP AVERAGES BASED ON USAGE OF TAPE AND SPEECH PREPARATION

Final Course Grade (average of each group)
Subliminal 2.23 (on a 4.0 scale) C
Placebo 1.8 (on a 4.0 scale) C-

Average number of times tape was played each week
Subliminal 3 times (30 minutes each time/side)
Placebo 3 times (30 minutes each time/side)

Average number of hour spent preparing for each speech
Subliminal 2 hours & 20 minutes
Placebo 3 hours

Table #6
TYPE OF TAPE PLAYER USED AND OVERALL COMMENTS

Type of tape player used	Portable	Stereo System	No Indication
Subliminal	4	8	1
Placebo	6	7	0

Overall Comments. Tape was:	Relaxing	Peculiar/Unpleasant	No Indication
Subliminal	4	4	5
Placebo	7	5	1

Table One indicates most of the participants were in the 18-28 age group and in their freshmen and sophomore years. The entire sample population consisted of 13 males and 13 females.

Table Two shows students of both groups were similar in credit hours attempted during the tested quarter and in their grade point averages at the start of the test period. Both groups averaged just over 15 credit hours attempted and grade point averages of 2.73 (placebo group) and 2.8 (subliminal group).

Table Three indicates student expectations of their course grades. Expectations within both groups centered in the "B" range. Grade expectation averages dropped slightly, within the "B" range, between the pre-test and post-test surveys.

Table Four outlines student self perceptions of their public speaking abilities. Both groups indicated similar improvement in their abilities to speak comfortably in front of an audience. Both groups indicated similar improvement in their perceptions of how well they were understood by audience members. Both groups indicated similar improvement in their levels of confidence when speaking in front of an audience.

Both groups indicated improvement in their perceptions of their effectiveness as public speakers, with the placebo group evaluating themselves higher in this area. Both groups indicated improvement in their perceptions of their public speaking abilities in comparison with their friends, but the placebo group noted higher ranking in this area on the post-test survey. Student pre-test perceptions of possible enjoyment of public speaking class experiences were the same in both groups. However, the placebo group indicated a higher level of enjoyment on the post-test survey.

Table Five lists group averages based on final grades in the course, average number of times the tape was played each week, and

the average number of hours spent preparing for each speech. The subliminal group received a higher final course grade average (2.23) than the placebo group (1.8). The averages are on a 4.0 scale. Members of both groups indicated they listened to their tape an average of three times a week. Each side of the tape plays for 30 minutes. The subliminal group members indicated they averaged 2 hours & 20 minutes preparing for each speech and the placebo group averaged 3 hours preparing for each speech.

Table Six notes the types of tape players used by the students and their overall comments regarding the tapes. Most students used a stereo system and a smaller portion used a portable tape player. The placebo group indicated the tape was relaxing (slightly over half) and peculiar/unpleasant (slightly under half). Five members of the subliminal group had no comment on the tape and the remaining eight members were equally divided in their evaluation of the tape being relaxing and peculiar/unpleasant.

The conclusions of this study are based on the purpose of the study and the operational hypothesis. The purpose of this study was to investigate the effectiveness of subliminal techniques for improving public speaking ability. The operational hypothesis states: Students who use subliminal tape programs designed to improve public speaking ability will perform no differently than classmates who listen to identical sounding placebo tape programs containing no subliminal messages.

The aforementioned hypothesis is rejected based on the data collected during the study. Most importantly, the public speaking average final course grade for the subliminal (experimental) group was

.43 (on a 4.0 scale) higher than the placebo (control) group. The subliminal group averaged a 2.23 grade average for the course and the placebo group averaged 1.8. This difference is not radically significant but it does warrant acknowledgement as a possible effect of subliminal tape usage.

Student self analysis, on the pre-test and post-test, did not differ much although variations were evidenced. The variations were in areas of public speaking ability compared with friends, enjoyment of the course experiences, and speech preparation time. The placebo group members evaluated themselves higher in effectiveness, public speaking ability compared with friends, and enjoyment of the course experiences. The placebo group members also averaged 3 hours preparation time for each speech compared to 2 hours & 20 minutes by the subliminal group members. Oddly enough, as previously mentioned, the subliminal group performed .43 (on a 4.0 scale) higher on the final course grade average than the placebo group.

Thus, placebo group members evaluated their abilities slightly higher than the subliminal group, but the subliminal group did better on the final course grade average than the placebo group. The significance of the differences in final course grade averages can be argued but, based on the findings of this study, this difference substantiates the need for further research on the effectiveness of subliminal programming.

Further research could address three primary areas. First, replication of the experimental design used in this study to investigate a possible consistency of findings. Second, study of the importance of how often the tape is listened to. Students in this study listened

to their tapes an average of three times a week. If they listened to them twice as much would the programming be twice as effective? Third, study of how this type of subliminal programming might be effective.

The use of subliminal programming poses interesting possibilities in a variety of areas in addition to public speaking. Additional research is needed to verify the claims made by organizations which produce such subliminal programming. This study is intended to serve as groundwork for such verification efforts.

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TYPE ON THIS SIDE

A. B. DICK 26-1011

APPENDIX (POST-TEST)

Name_____

Tape#_____

Age 18-28 29-38 39-48 49-58 59+

Class Freshman Sophomore Junior Senior

Sex Male Female

Credit Hours this quarter _____

Grade expected to earn in thiscourse A B C D F

Current Grade Point average (G.P.A.) _____

SA A N D SD I am comfortable speaking to a group of people.

SA A N D SD I am easily understood when I speak to a group of people.

SA A N D SD I am confident speaking in front of a group of people.

SA A N D SD I am an effective public speaker.

SA A N D SD I am a better public speaker than most of my friends.

SA A N D SD I enjoyed my experiences in my public speaking class.

What kind of tape player(s) did you play the tape on?

How many hours a week (average) did you listen to the tape?(Sum total hours divided by nine)

How many hours (average) did you spend preparing for each speech?

Comments about the usage of the tape:

A. B. DICK 26-1011 TYPE ON THIS SIDE

APPENDIX (PRE-TEST)

Name_____

Tape #_____

Age 18-28 29-38 39-48 49-58 59+

Class Freshman Sophomore Junior Senior

Sex Male Female

Credit Hours this quarter _____

Grade expected to earn in this course A B C D F

Current Grade Point Average (G.P.A.) _____

Please respond to the following statements using the following scale.
SA - strongly agree
A - agree
N - neutral
D - disagree
SD - strongly disagree

SA A N D SD I am comfortable speaking to a group of people.

SA A N D SD I am easily understood when I speak to a group of people.

SA A N D SD I am confident speaking in front of a group of people.

SA A N D SD I am an effective public speaker.

SA A N D SD I am a better public speaker than most of my friends.

SA A N D SD I think I will enjoy my experiences in my public speaking class.